

**REMARKS/ARGUMENTS**

In the first portion of the Office Action, the Examiner reminded the Applicant regarding the proper content of an abstract of the disclosure. In response, Applicant has amended the Abstract in accordance with the Examiner's helpful comments to include more detail as to the downcomer pipe, vertical window, vapor outlet duct and bath tub container. Applicant respectfully submits that no new matter has been added.

In the second portion of the Office Action, the Examiner objected to the disclosure because page 17, line 12 recites a "catalyst distributor slot 6" and the drawings, specifically figure 11, fail to show a reference number 6. Applicant submits herewith an amended Figure 11 in which element numeral 66 has been re-identified as element numeral 6. Support for the change can be found in the originally filed specification at, *inter alia*, page 12, lines 17-19, Figure 3, page 17, lines 11-13 and 17-19; and page 17, line 22 to page 18, line 1. Applicant respectfully submits that no new matter has been added and that the amendment is sufficient to overcome the objection.

In the third portion of the Office Action, the Examiner rejected Claim 29 under 35 U.S.C. § 112, second paragraph, as being indefinite. In response, Applicant has amended Claim 29 to recite "the catalyst distributor overflow point" as the "catalyst distributor overflow slot" without changing the scope of Claim 29, and to add the word "means" after "fluidized solids outlet" to harmonize with Claim 27, without changing the scope of Claim 29.

In this portion of the Office Action, the Examiner also expressed some confusion as to whether the distributor slot (66) in figure 11 is associated with the fluidized solids outlet for allowing fluidized solids to exit the containment means. Distributor slot 66 of Figure 1 has been amended as "distributor slot 6." Applicant directs the Examiner's attention to pages 12 and 17-18

of the specification. In the second sentence of the second paragraph on page 12, referring to Figure 3, the specification states: "The re-aerated catalyst exits the sealing means at catalyst drains 58 and catalyst distributor slots 6 . . . ." In the last sentence of the first full paragraph on page 17, the specification provides: "The top of the bath tub sealing means 12 is provided with catalyst distributor slot 6 and the bottom of the bath tub sealing means is provide with drains 58." In the last line of the second full paragraph, the specification recites: "Catalyst removal is effective by catalyst distributor slots 6 and catalyst distributor drains 58." In the sentence bridging pages 17-18, the specification further states "The fluidized catalyst entrained with steam then exits the bath tub sealing means 12 *by overflowing out the top or through the distribution slots on the sides* and bottom of the bath tub sealing means 12 through catalyst distributor slot 6." (Emphasis added). Thus, as additional catalyst falls into the bath tub containment means, the additional catalyst is fluidized and most of the catalyst overflows out the top of the containment means via the slots 6 as shown in Fig. 11 (and also Figure 3). Additionally, despite the fact that the catalyst is in the bath tub containment means is fluidized, some of the catalyst will settle to the bottom of the bath tub containment means and exit the through the catalyst distributor drain 58.

Accordingly, Applicant respectfully submits that the Section 112 rejection is overcome.

In the fourth portion of the Office Action, the Examiner rejected Claim 27 under 35 U.S.C. § 102(b) as being anticipated by Avidan (5376261). Avidan does not disclose each and every feature of the invention claimed in Claim 27 as amended herein. Applicant has amended Claim 27 to recite that the bath tub sealing means is for sealing spent catalyst solids from cracked vapors produced in a riser reactor and comprises a collar for fitting around the riser reactor. Support for the amendments can be found in the originally filed specification at, *inter*

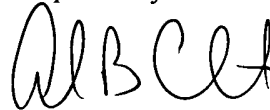
*alia*, page 12, lines 11-15; page 17, lines 17-18; and page 17, lines 9-10. The “U” trap seal of Avidan does not separate catalyst from a riser reactor and does not possess a collar for fitting around a riser reactor as required by Claim 27. Accordingly, Applicant respectfully submits that the rejection is overcome.

In the fifth portion of the Office Action, the Examiner rejected Claims 27-29 under 35 U.S.C. § 102(b) as being anticipated by Lomas (5176815). In response, Applicant has amended Claim 27 to recite that the bath tub sealing means is for sealing spent catalyst solids from cracked vapors produced in a riser reactor and comprises a collar for fitting around the riser reactor. Support for the amendments can be found in the originally filed specification at, *inter alia*, page 12, lines 11-15; page 17, lines 17-18; and page 17, lines 9-10. The seal device of Lomas does not possess a collar for fitting around a riser reactor as required by Claim 27. Instead the seal device of Lomas is directly connected to the riser. Such a configuration will suffer from thermal expansion effects at the connection of the riser and seal. Moreover, the configuration of Lomas does not provide catalyst distribution slots at the top of the seal device as called for in claim 29, but instead funnels the overflow through an opening in the bottom of the device. This has the effect of re-compacting the catalyst and does not provide for the more efficient dilute phase stripping provided by the device of the present invention. Accordingly, Applicant respectfully submits that the rejection is overcome.

Attorney Docket No. 696-253B  
Preliminary Amendment dated July 10, 2003

Based on the foregoing, Applicant respectfully requests allowance of Claims 27-29. Early and favorable action is earnestly solicited. The Examiner is invited to contact the undersigned to discuss and still outstanding matter.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Al B. Clement', written in a cursive style.

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